# SCHOOL LIFE

*Official Journal of the . . .*

OFFICE OF EDUCATION

The State Guidance Worker

DOLPH CAMP

Data-Processing Centers in the States

JOHN E. BEAN

JULY 1964

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**This medallion, symbol of academic excellence, was presented by President Johnson to each of the 121 Presidential Scholars. One side of the medallion shows Prometheus strangling the vulture of darkness and ignorance and holding aloft the light of learning; the other side, the head of President Johnson. The medallion was created by Jacques Lipschitz.**

# The Presidential Scholars, 1964

Telegrams went out from Washington on June 3 to 121 of this year's outstanding high school graduates, telling them that they had received a high honor: President Johnson had named them the Presidential Scholars of 1964.

The President chose these students on the recommendation of the Commission on Presidential Scholars, headed by Milton S. Eisenhower. The Commission had considered thousands of candidates from both public and private high schools, from the graduating classes of both last January and this June; all of the candidates had been recommended under a process that included screening by the leading testing and scholarship agencies. In each student the Commission looked for two qualifications in particular: intellectual achievement and promise of more to come. Financial need was not taken into account. No monetary award goes with the honor.

At least one boy and one girl were chosen from each State, the District of Columbia, and Puerto Rico; two are from American high schools abroad.

There are giants and heroes among them. Some of these students have reached the top rungs of the academic


U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ANTHONY J. CELEBREZZE, *Secretary*
OFFICE OF EDUCATION . . . FRANCIS KEPPEL, *Commissioner*
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ladder despite handicaps that would have defeated children with less character. One boy is totally deaf. One girl comes from a broken home and was hospitalized for months as a result of an accident when she was in the sixth grade; another was among the first group of Negro children to be integrated into a formerly all-white high school in Little Rock. One boy comes from a family so poor that it cannot afford either telephone or television.

Anyone who reads the thumbnail sketches the Office of Education has prepared on the individual scholars cannot help noticing that none of them has made excellence in academic subjects his sole interest. One girl has been rated the most musically advanced pianist in State competitions and has won prizes on her steers in 4–H shows. Another, who has made the highest possible scores in the Scholastic Aptitude Tests for both mathematical and verbal ability and has won science awards sponsored by industry, is active in church work and the Girl Scouts and teaches catechism after school. "I love mathematics," she says, "and solving puzzles, reading, meeting new people, and making friends."

One boy, who plans to study architecture, is a violinist in a philharmonic orchestra and has made ink drawings that have been exhibited in his city's academy of arts; another, whose main field is organic chemistry, has learned to speak Spanish as if it were his native tongue and, on the side, tutors fellow students in trouble with their grades. Still another, who wants to become a physicist and finances his physics projects by baby sitting, doing yard work, and painting, has time for his avocation in tropical fish and plants; he has built his own aquarium and greenhouse and has become such an expert on fish that a pet shop owner takes him along on buying trips.

The deaf boy, who is a skilled lip reader and does so well in chemistry and physics that he has won State and national awards, has won a school letter in wrestling. And a boy who has made a nuclear magnetic resonance spectrometer for Amherst College, won awards at an international science fair, and been hired by the Air Force for summer work as a researcher, is also an artist. He is a concert pianist, has composed for piano, voice, and orchestra and has won awards for poetry.

All the scholars were brought to Washington at the Federal Government's expense, and were honored at the White House on June 10. The President gave each scholar a medallion and reminded all of them that they were representatives of all students with brilliant records.

### List of Presidential Scholars

ALABAMA
Shirley Crawford, Marion
John Hamilton Jordan, Montgomery

ALASKA
Joanne Wallington, Anchorage
Frederick Lewis Wicks, Anchorage

ARKANSAS
Marcia Elaine Cooke, Jacksonville
Jacquelyn Faye Evans, Little Rock
Victor Manuel Lovell, Fort Smith

ARIZONA
Rex William Cowdry, Phoenix
Paul Kenneth Hansma, Scottsdale
Judith Gail Holyoke, Phoenix

CALIFORNIA
Katherine Ann Bertsch, San Francisco
Patrick Gerald Hogan, San Francisco
Timothy Alan Patterson, Riverside

COLORADO
Deborah Mona Baumgartel, Colorado Springs
Phillip Howard Davis, Fort Collins
Evert Wendell Karman, Denver

CONNECTICUT
Donald Angus MacGillis, West Hartford
Eleanor Flagg von Auw, Stamford

DELAWARE
Katherine Conner, Wilmington
Thomas George Hammer, Wilmington

DISTRICT OF COLUMBIA
Richard Catlin Baron
Virginia Carol Fano
Frank Martin Snowden, III

FLORIDA
Janet Margaret Cooper, Miami
Gerald Barnette Cope, Jr., Eau Gallie

GEORGIA
Frances Lee Ansley, Columbus
Howard Owen Hunter, III, Brunswick
Linda Fay McClure, Marietta

HAWAII
Wilbur Stanley Chun, Honolulu
Trudy Ann Porter, Hickam Air Force Base

IDAHO
Barbara Lynn Mickelson, Boise
John Robertson Porter, Moscow

ILLINOIS
Jeffrey Mark Liebman, Evanston
George Rosen, Glencoe
Marsha Faye Stegitz, Maywood

INDIANA
Klari Joanne Neuwelt, Gary
John Ignatius Nurnberger, Indianapolis

IOWA
Sally Jeanette Cross, Iowa City
Mark A. Peterson, Ames

KANSAS
Alice Kathleen Cox, Wellington
Donald Mark Essmiller, Great Bend

KENTUCKY
Phyllis Frances Field, Louisville
Robert Davis Trent, Hardinsburg

LOUISIANA
Carolyn Myra Easley, Shreveport
Edward F. Glusman, Jr., East Baton Rouge
Michael Edward Saulny, New Orleans

MAINE
Richard Paul Mestetsky, Portland
Susan Swingle Meyer, Orono

MARYLAND
Stephen Jeffrey Browne, Baltimore
Leona Margaret Dryden, Hyattsville
Arthur Edward Ogus, Silver Spring

MASSACHUSETTS
Amory Bloch Lovins, Amherst
Victoria Reid Sauer, Medfield

MICHIGAN
Mehrene Emma Larudee, Ann Arbor
John Stephen Turk, East Lansing

MINNESOTA
Sara Bey, Minneapolis
David Eugene Nelson, Rochester

MISSISSIPPI
Ladye Inman Montgomery, Greenwood
Darland Conrad Smith, Jackson

MISSOURI
Everett Keith Rowson, Kansas City
Peggy Lee Townsend, Overland
David Russell Wheeler, Columbia

MONTANA
Peggy Jean Denney, Conrad
Lyle Wesley Herbig, Missoula

NEBRASKA
Stephen Lawrence Coy, Lincoln
Cheryl Linda Marsh, Lincoln

NEVADA
Dian Estelle Degnan, Reno
Michael Roy Pease, Las Vegas

NEW HAMPSHIRE
Mark Franklin Lapham, Portsmouth
Robin Macurda Ross, Stratham

NEW JERSEY
George Edward Cave, West New York
Kathleen Ann Frankovic, Garfield
Kenneth Willcox Wachter, Westfield

NEW MEXICO
Ivan Victor Faucon, Gallup
Elaine Alice Leachman, Los Alamos

NEW YORK
Kenneth Mark Minkoff, Laurelton

Jill Elizabeth Ramsey, Briarcliff Manor
Margaret Rossoff, Brooklyn
John O'Farrell Stevenson, Brooklyn

NORTH CAROLINA
Frances Hiller Lynch, Charlotte
Alfred Clarence McCall, Jr., Greensboro
Andrea Jeanne Williams, Asheville

NORTH DAKOTA
David Earl Butz, Grand Forks
Dorothy Ione Myers, Fargo

OHIO
Janis K. Ford, Lakewood
Dale Hubbard Gieringer, Cincinnati
William George Sinkford, Cincinnati

OKLAHOMA
Thomas Earl Erbar, El Reno
Ann Karen Grekel, Claremore

OREGON
Stephen Louis Talbott, Portland
Alice Ruth Trenholme, Eugene

PENNSYLVANIA
Karl A. Kocher, Philadelphia
Ursula Erika Stauch, Ambridge

PUERTO RICO
Lucas Juan Blanco, Guaynabo
Elas Margarita Ortiz, Las Americas

RHODE ISLAND
Kathleen Mary Beaudoin, Barrington
Gary Allen Chopak, Cranston

SOUTH CAROLINA
Clinton Graydon McCrory, Columbia
Johanna Margaret Scherer, Beaufort

SOUTH DAKOTA
Katherine Ruth Jensen, Whitewood
Lee R. Girton Snyder, Huron

TENNESSEE
Patrick Sidney Diehl, Chattanooga
Carol Ann McCain, Memphis

TEXAS
Candace Ann Hynes, Sugar Land
Nathan Gerald Isgur, South Houston

UTAH
Barbara Ruth Nelson, Salt Lake City
Keith Alden Rose, Salt Lake City

VERMONT
Jay Reynolds Freeman, Burlington
Carlie Elisabeth Onion, Castleton

VIRGINIA
Anna Huntington Gideon, Annandale
Michael Owen Wise, Fairfax

WASHINGTON
Chris Henry Achen, Spokane
Larraine Toly, Seattle

WEST VIRGINIA
Robert William Childs, Morgantown
Faith E. Mace, Bluefield

WISCONSIN
Jean Celia Maraniss, Madison
Michael Steven McPherson, Milwaukee

WYOMING
Sandra Rae Clark, Sheridan
Irvin Wayne Kinney, Laramie

GERMANY (Munich-American High School)
Dorothy Blair Gibb, Headquarters, SACom

INDIA (American-International School)
Gordon McCracken Fisher, New Delhi, India

# Notes on the Notable

## FEDERAL PROGRAMS AND ACTIVITIES

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

### City schools should reach children early

After a series of visits to 18 of the largest school systems in the United States in a search for information on how these schools work to help children handicapped by cultural and financial poverty, two Office of Education specialists in elementary education have come to at least three general conclusions.

First, the city school must reach out early for its children. Children cannot afford to wait until they are 5 and 6 years old before they come under the school's influence; they should be reached when they are only 3 or 4.

Second, the school must get help from—and give help to—parents and community groups.

Third, the city school must have more money to spend on special services.

Helen Mackintosh and Gertrude Lewis, who made the visits, promise a detailed report of their survey before school opens in the fall.

### Conference on relationships between teachers and boards

The points of view of the three groups of persons party to negotiations between teaching staffs and school boards—the teachers, the board members, and the school administrators—were considered at a recent Office of Education conference on staff relationships.

Instead of focusing on the policy positions of the organizations representative of these groups, the conference discussion centered on the major issues and potential trends in staff relationships. In the past, according to the 20 or so university professors and school administrators who attended the conference, discussions have too frequently taken place only within the organizations concerned with the problem or within local communities only after a crisis has developed.

The conference also emphasized the points of view of persons outside the field of school administration—the opinions of lawyers, for example, and of sociologists and industrial relations experts.

John Fischer, president of Teachers College, Columbia University, who made the opening address, expressed the opinion that the increasing activity of teachers in demanding the right to express their views on policy matters will have as much influence on the future development of the schools as the Nation's efforts to improve relations among persons of different races.

### Enrollment in modern foreign languages gains steadily

Enrollment in modern foreign languages in public high schools (grades 9–12) increased from 14.2 percent of the total enrollment in 1954 to 24.4 percent in 1962. Since some students took two languages, the enrollment figures below, which are from a survey by the Modern Language Association under contract with the Office of Education, do not give the exact number of students:

| Year: | *Enrollment in modern foreign languages* | *Total enrollment* |
|---|---|---|
| 1954 | 639, 773 | 4, 505, 440 |
| 1958 | 1, 295, 944 | 7, 897, 232 |
| 1959 | 1, 564, 883 | 8, 155, 573 |
| 1960 | 1, 867, 358 | 8, 649, 495 |
| 1961 | 2, 192, 207 | 9, 246, 925 |
| 1962 | 2, 418, 899 | 9, 891, 183 |

Of the language students in 1962, all but 7,423 were taking one of the lan-

guages usually taught in high school—Spanish, French, German, Russian, or Italian.

Nonpublic high schools have had a similar increase in enrollment in foreign languages. By 1962, 54.5 percent of the students in independent high schools were taking modern foreign languages; in Catholic high schools, 37.5 percent.

### States improve instruction in science, math, and languages

In the past 5 years $181 million in Federal funds has been allocated to the States under title III, National Defense Education Act of 1958. Have the States used the grants to good purpose? Have they in fact improved the instructional programs in science, mathematics, and modern foreign languages? Judging by the narrative reports the States make to the Office of Education, the answer to both questions is "yes."

Reports from 49 States, 3 Territories, and the District of Columbia for the fifth year of the program, the 1962–63 school year, point to the progress both elementary and secondary schools are making, but at the same time they point up the large amount of work yet to be done.

The following information comes from William J. Gruver, Office of Education specialist in science, who has summarized the fifth-year reports:

★ Schools are unmistakably making more and more use of the laboratory in instruction not only in science and modern foreign languages but also in mathematics. The discovery method being employed in modern mathematics instruction, which encourages students to discover principles through experimentation, makes laboratories essential.

★ Secondary schools are making more progress than elementary schools in providing adequate laboratory facilities. Even so, in only 10 States does *every* secondary school have some type of science laboratory; in 26 other States about 75 percent of the schools have laboratories. Of these 36 States, only 12 consider as many as half their science facilities adequate.

★ About 6,500 public secondary schools have language laboratories in contrast to 46 in 1958. But not all of the 6,500 laboratories have enough equipment to permit all the language students to practice frequently and regularly: Only 4 States consider as many as half their language installations adequate; 29 States report that at least three-fourths of the schools lack sufficient equipment.

★ At least 30 States have some kind of mathematics laboratory in their schools, but the majority of schools with laboratories are concentrated in 5 States. It is, however, difficult to report on such laboratories since the use of the laboratory in teaching mathematics is just now gaining momentum.

★ Improvements have been made in State leadership in instruction. Nearly every State department now employs specialists in science, mathematics, and modern foreign languages. All but three States have full-time supervisors for science; all but six for mathematics; and all but nine for modern foreign languages.

★ Under the direction of State supervisors, States are conducting inservice programs for teachers on Saturdays, in the evenings, and during the summer months. In 1962–63, 48 States sponsored such inservice programs, but the number of teachers participating varied greatly; generally speaking the teacher of modern foreign language, elementary and secondary, was the most frequent participant, and the teacher of elementary science the least frequent.

★ The need to continuously update the teaching staff was listed as the prime goal of State supervisors of science, mathematics, and modern foreign languages.

### $3 million awarded to States

The U.S. Office of Education has awarded approximately $3.15 million to the 50 States for training of teachers or supervisors of teachers of handicapped children during the academic year 1964–65. The teachers and supervisors who are trained will work with children who are mentally retarded, emotionally disturbed, or physically handicapped.

The grants are authorized under Public Law 85–926, which the Congress amended last year to provide a new 3-year program.

### Taiwan educator on AID program

Foreign educators studying in the United States at present under the Technical Assistance program include the president of Taipei Institute of Technology, Tan Chang. Mr. Chang is on a 3-month program of study and observation arranged by the Technical Training Section, Bureau of International Education, Office of Education, for the Agency for International Development. His program includes a summer session in industrial education administration at the Colorado State University and visits to trade schools, teacher training colleges, and 2-year technology programs at junior and 4-year colleges (technical institute level).

The institute which Mr. Chang heads is the only public post-high-school technical institute in Taiwan. The industry of the country is growing and with it the need for technical education. Mr. Chang's program has been designed to give him an opportunity to acquire knowledge which will enable him to improve the programs of the institute and to make them consonant with the needs of his country's industry.

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### Portrait of the President

Copies of a portrait of President Johnson are available from the Distribution Unit of the Office of Education, Washington, D.C., 20202. School superintendents, principals, and teachers may have single copies on request, free of charge. There are two sizes: 17 inches by 23, and 8¾ inches by 11.

# The Guidance Worker in the State Department of Education

DOLPH CAMP

THE NUMBER of professional guidance workers in State departments of education has nearly tripled in the years since the National Defense Education Act of 1958 (NDEA) first made Federal funds available for guidance, counseling, and testing in the Nation's schools. These workers serve the agencies through which NDEA funds are distributed to local schools, and they play a large part in shaping the guidance and counseling programs of these schools.

How well are these workers qualified, by education and experience, to meet their responsibilities and to provide the leadership the schools expect of them? Have they affiliated themselves with professional organizations that can be helpful to them? Are their professional qualifications and duties recognized in the salaries they receive? These are questions that bear on the professional status of guidance workers, and the Office of Education has sought the answers.

In the fall of 1962 the Office of Education sent a questionnaire to each of the 210 professional State guidance workers listed in its *Directory of State Department of Education Personnel for Guidance, Counseling, and Testing, September 1962*. As many as 178, or more than 84 percent, replied. Returns came from every State, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam; in fact, returns were total from all but 12 States, and from no State did they fall below 50 percent. From two States the returns were larger than we expected—each State had added another guidance worker since the directory was published. Returns came from the States as follows:

The largest numbers from New York (14), Ohio (12), Pennsylvania (11), Hawaii and Kentucky (8 each), Texas and Virginia (7 each), and Tennessee and Puerto Rico (6 each),

Five each from Colorado, Georgia, and Massachusetts,

Four each from California, the District of Columbia, Kansas, Missouri, North Carolina, South Carolina, and Wisconsin,

Three each from Connecticut, Delaware, Minnesota, Montana, New Jersey, Oregon, and West Virginia,

Two each from Arkansas, Florida, Iowa, Louisiana, Maine, Michigan, Mississippi, Nebraska, New Hampshire, New Mexico, Oklahoma, Utah, and the Virgin Islands,

One each from all other States and Territories.

Of the respondents, 147 were men and 31 were women. The median age for men was 40.3 years; for women, 48.9; for both, 41.4. About 52 percent clustered around the median. Eleven men were under 30 and 6 were over 60; the others ranged between 31 and 51. The women ranged between 36 and 59, except for two who were over 60.

*Dr. Camp is chief of the Occupational and Career Guidance Section, Office of Education.*

## Education

All but three of the respondents had at least a master's degree. Forty—more than one out of four—had either a Ph. D. or an Ed. D.; of these, 31 had either a major or a minor in guidance services and several had both. (Some respondents listed majors for two degrees; others listed two or more majors for one degree.) The distribution of degrees among the various regions of the country was as follows (for a list of the States in each region see table 3):

| *Region* | *Ph. D.* | *Ed. D.* | *Master's* | *Bachelor's* |
|---|---|---|---|---|
| New England | 1 | 3 | 8 | 1 |
| Middle Atlantic | 4 | 4 | 17 | ..... |
| East North Central | 3 | 1 | 19 | 1 |
| West North Central | .... | 2 | 16 | ..... |
| South Atlantic | 1 | 5 | 24 | ..... |
| East South Central | .... | 3 | 13 | ..... |
| West South Central | 1 | 1 | 10 | ..... |
| Mountain | 1 | 4 | 10 | ..... |
| Pacific | 1 | 5 | 10 | ..... |
| Outlying | .... | .... | 8 | 1 |
| Total | 12 | 28 | 135 | 3 |

*Graduate degrees in guidance services.*—Most of the respondents (137 of them)—65 percent of the men and 90 percent of the women—had their degrees in guidance services. Their minors were as follows:

The 26 workers with doctor's degrees: Psychology, education, admin-

**Table 1.—Number of State guidance workers who had a graduate degree in a field other than guidance services but who had earned hours of credit in guidance courses, by the number of hours earned, fall 1962**

| Course | 1–3 hours | 4–6 hours | 7–9 hours | 10–12 hours | More than 12 hours | Total |
|---|---|---|---|---|---|---|
| Guidance principles and practices | 23 | 10 | ..... | ..... | 2 | 35 |
| Appraisal of the individual | 12 | 5 | 5 | 4 | 8 | 34 |
| Counseling procedures and practices | 15 | 14 | 3 | ..... | 1 | 33 |
| Counseling tools and techniques | 12 | 13 | 2 | 2 | 2 | 31 |
| Occupational information | 19 | 7 | ..... | ..... | 1 | 27 |
| Organization and administration of the guidance program | 20 | 5 | ..... | ..... | 1 | 26 |
| Group guidance procedures | 16 | 2 | ..... | ..... | ..... | 18 |
| Supervised practice | 6 | 2 | ..... | ..... | 3 | 11 |
| Counseling practicum | 10 | 6 | ..... | ..... | ..... | 16 |

istration and evaluation, vocational education, higher education, secondary education, school administration, or student personnel administration.

The 111 workers with master's degrees: Education (38), psychology (17), social studies (3), sociology (2), and a variety of academic fields (24). Twenty-seven reported no minors at all.

*Graduate degrees not in guidance services.*—The 38 workers whose degrees were *not* in guidance services had majors and minors as follows:

The three with doctor of philosophy degrees: Majors in psychology, measurement and evaluation, and administrative research; minors in government and economics, psychology, and clinical psychology.

The 11 with Ed. D. degrees: Majors in school administration, secondary education, agricultural education, curriculum, administration and supervision, human growth and development, psychology and measurement; minors, 5 in guidance services and the rest in school administration and supervision, history, and social studies.

The 24 with master's degrees: Seventy-three percent had minors in education; the rest had minors in such subjects as psychology, history, language arts, political science, public administration, sociology, and zoology.

Many of these workers, however, had taken academic work in guidance. (Table 1 shows how many had taken how much.) They had taken this work in courses in statistics and measurements; statistics; abnormal, developmental, educational, clinical, and adolescent psychology; personality adjustment; psychometrics; individual testing; introduction to psychotherapy; counseling and psychotherapy; special education; sociology; economic and labor problems; community resources; and educational research.

*Bachelor's degrees.*—Of the 183 respondents who replied to a question about their majors for the bachelor's degree, 68 had majored in education. Twenty-three had majored in social studies, 21 in English, 11 in history, 9 in psychology, 8 in mathematics, 7 in biology, 6 in economics, and 6 in sociology. The other 24 had majored in such subjects as agriculture, engineering, fine arts, French, industrial arts, music, physics, and speech.

**Table 2.—Professional organizations to which State guidance workers belonged, fall 1962**

| Organization | Number of workers belonging | | | | | Percent of workers belonging |
|---|---|---|---|---|---|---|
| | With degrees in guidance services | | | With degrees not in guidance services | Total | |
| | Ph. D. | Ed. D. | Master's | | | |
| American Personnel and Guidance Association | 8 | 15 | 97 | 24 | 144 | 80.90 |
| American College Personnel Association | ..... | ..... | 5 | 1 | 6 | 3.37 |
| Association for Counselor Education and Supervision | 7 | 13 | 71 | 19 | 110 | 61.80 |
| National Vocational Guidance Association | 7 | 10 | 57 | 13 | 87 | 48.88 |
| Student Personnel Association for Teacher Education | ..... | 1 | ..... | 1 | 2 | 1.12 |
| American School Counselor Association | 5 | 6 | 47 | 9 | 67 | 37.64 |
| American Rehabilitation Counseling Association | ..... | ..... | ..... | 1 | 1 | .56 |
| American Psychological Association, Inc | 3 | 1 | 1 | 5 | 10 | 5.62 |
| Division of Evaluation and Measurement | 1 | ..... | ..... | 2 | 3 | 1.69 |
| Division of School Psychologists | ..... | ..... | ..... | 1 | 1 | .56 |
| Division of Counseling Psychology | 1 | ..... | ..... | 2 | 3 | 1.69 |
| Division of Psychologists in Public Services | ..... | ..... | ..... | 1 | 1 | .56 |
| National Education Association | 5 | 9 | 63 | 16 | 93 | 52.25 |
| American Vocational Association | 3 | 1 | 19 | 5 | 28 | 15.73 |
| State education associations | 5 | ..... | 29 | 12 | 46 | 25.84 |
| State or regional personnel and guidance associations | 17 | 8 | 70 | 23 | 118 | 62.29 |

*Place of study.*—The State guidance workers with doctorates in guidance services had obtained them at 19 universities in all parts of the country, including such institutions as the University of Colorado, Columbia University, Northwestern University, Stanford University, Syracuse University, and the University of North Carolina. Those with master's degrees in guidance had obtained them at 73 institutions, including Columbia University (13), New York University (6), State University of New York-Albany (5), Peabody College (4), University of Missouri (4), and Boston University (4).

Most of the doctor's and master's degrees in guidance services had been granted by colleges of education. Of the 26 doctoral degrees, 21 were from colleges of education, 4 from liberal arts colleges, and 1 from an institution listed as "other." Of the 124 master's degrees, 96 were from colleges of education, 18 from liberal arts colleges, and 10 from other types of colleges.

A further breakdown shows that 103 doctor's and master's degrees had been earned from departments of education, 18 from departments of educational psychology, 10 from departments of psychology, and 14 from other departments.

### Experience

Responses showed that the State department guidance workers represented a wide range of work experi-

ence, not only in education and guidance but in occupations outside of education.

*Noneducational occupations.*—Over three-fourths (78.6 percent, or 140) of the workers—120 men and 20 women—had at one time or another worked at noneducational occupations. Some had worked at these occupations for only brief periods; others had done so for years:

Eleven workers, 1–12 months
Thirty-two, 11–36 months
Thirty-three, 37–60 months
Sixty-four, over 60 months

They had been employed by many organizations, businesses, and industries, including lumber, construction, canning, oil, railroad, telephone, and ice and fuel companies. They had worked with such Government agencies as the U.S. Employment Service and the Office of Naval Research. Some had worked with department

**Table 3.—Salaries of State guidance workers with advanced degrees, by type of degree and sex of worker, fall of 1962**

| Salary (dollars) | Degrees in guidance services | | | | | | | | Degrees not in guidance services | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ph. D. | | Ed. D. | | Master's | | Total | | Ph. D. | | Ed. D. | | Master's | | Totals | |
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| 5,000 to 5,999 | .... | .... | .... | .... | 3 | 2 | 3 | 2 | .... | .... | .... | .... | 2 | .... | 2 | .... |
| 6,000 to 6,999 | .... | .... | .... | .... | 8 | 2 | 8 | 2 | .... | .... | .... | .... | 3 | .... | 3 | .... |
| 7,000 to 7,999 | .... | .... | 1 | .... | 28 | 6 | 29 | 6 | .... | .... | 4 | .... | 8 | .... | 12 | .... |
| 8,000 to 8,999 | .... | 1 | 2 | .... | 20 | 7 | 22 | 8 | .... | .... | 4 | .... | 2 | .... | 6 | .... |
| 9,000 to 9,999 | 3 | 1 | 4 | 1 | 15 | 1 | 22 | 3 | 1 | 1 | 1 | .... | 4 | 1 | 6 | 2 |
| 10,000 to 10,999 | 2 | .... | .... | 1 | 7 | 2 | 9 | 3 | 1 | .... | .... | .... | 1 | .... | 2 | .... |
| 11,000 to 11,999 | 1 | .... | 4 | .... | 5 | .... | 10 | .... | .... | .... | .... | .... | 1 | .... | 1 | .... |
| 12,000 and over | 1 | .... | 4 | .... | 4 | 1 | 9 | 1 | .... | .... | 2 | .... | 1 | 1 | 3 | 1 |
| Total | 7 | 2 | 15 | 2 | 90 | 21 | 112 | 25 | 2 | 1 | 11 | 0 | 22 | 2 | 35 | 3 |

**Table 4.—Salaries of 175 guidance workers in State departments of education, by regions,[1] fall 1962**

| Salary | New England | Middle Atlantic | East North Central | West North Central | South Atlantic | East South Central | West South Central | Mountain | Pacific | Outlying parts |
|---|---|---|---|---|---|---|---|---|---|---|
| 5,000 to 5,999 | ..... | ..... | ..... | ..... | ..... | 4 | ..... | ..... | ..... | 3 |
| 6,000 to 6,999 | 1 | ..... | 1 | 2 | 1 | 5 | 1 | ..... | ..... | 3 |
| 7,000 to 7,999 | 4 | ..... | 6 | 8 | 10 | 4 | 9 | 3 | ..... | 2 |
| 8,000 to 8,999 | ..... | 3 | 4 | 5 | 12 | 2 | 1 | 5 | 2 | ..... |
| 9,000 to 9,999 | 4 | 10 | 7 | 3 | 2 | ..... | 1 | 3 | 4 | ..... |
| 10,000 to 10,999 | 2 | 4 | 3 | ..... | 2 | ..... | ..... | 3 | 1 | ..... |
| 11,000 to 11,999 | ..... | 3 | 2 | ..... | 2 | ..... | ..... | 1 | 3 | ..... |
| 12,000 and over | 1 | 5 | 1 | ..... | 1 | ..... | ..... | ..... | 6 | ..... |
| Total | 12 | 25 | 24 | 18 | 30 | 15 | 12 | 15 | 16 | 8 |
| Median salary | $9,250 | $9,950 | $9,143 | $7,125 | $8,333 | $5,700 | $7,555 | $8,900 | $11,333 | $6,333 |
| Median family income[2] | 6,128 | 6,211 | 6,125 | 5,154 | 4,713 | 3,793 | 4,548 | 5,660 | 6,572 | ..... |

[1] The regions used here include States as follows: NEW ENGLAND, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut; MIDDLE ATLANTIC, New York, New Jersey, Pennsylvania; EAST NORTH CENTRAL, Ohio, Indiana, Illinois, Michigan, Wisconsin; WEST NORTH CENTRAL, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas; SOUTH ATLANTIC, Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida; EAST SOUTH CENTRAL, Kentucky, Tennessee, Alabama, Mississippi; WEST SOUTH CENTRAL, Arkansas, Louisiana, Oklahoma, Texas; MOUNTAIN, Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada; PACIFIC, Washington, Oregon, California, Alaska, Hawaii; OUTLYING TERRITORY, Guam, Puerto Rico, Virgin Islands.

[2] Source of data is the Bureau of the Census, U.S. Department of Commerce, report for 1960.

and grocery stores and others on farms and in dairies.

*Educational positions.*—The State guidance workers had held many educational positions. They had been administrators, principals of both high schools and elementary schools, high school supervisors, classroom teachers, and coaches. The length of this experience varied. For instance—

108 had taught in high school from 1 to 10 years; 13 for more than 10 years.

26 had served as teachers and administrators or coaches from 1 to 9 years.

6 had served as teachers in junior colleges for 1 or 2 years.

37 had served as college or university teachers from 1 to 10 years or more.

*Counselor experience.*—Their experience as counselors varied:

73 had served as high school counselors for from 1 to 9 years; 3 for more than 10 years.

50 as counselors and teachers in high school from 1 to 9 years, 1 more than 10 years.

11 as high school supervisors and high school counselors from 1 to 10 years.

4 as elementary school counselors.

2 as elementary school counselors and teachers or administrators.

8 as counselors and college teachers.

### Membership in professional organizations

Although many of the State guidance workers belonged to professional associations, membership in several organizations was surprisingly low (table 2). Fewer than two out of three belonged to the Association of Counselor Education and Supervision, an association offering special assistance to State guidance workers. Only about one out of four belonged to State education associations. And only one out of six belonged to the American Vocational Association, an organization representing an important part of the guidance worker's activities in a time of rapid change in the occupational structure of the Nation and increased emphasis on vocational education.

## The human side of Federal aid

**Two industries, lumbering and fishing, have for many years been the economic mainstay of Astoria, Oreg., a town of approximately 10,000 people. Now, however, one is laying off workers and the other is suffering from a shortage of workers.**

**As the lumber industry has declined, unemployment has increased, and some families have moved on to other communities. Their migration has led to a shortage of filleters in the fish processing industry, since many of the housewives and other women who moved on were filleters.**

**To meet the need for fish filleters, Astoria now has a training program for filleters under the Manpower Development and Training Act. The 10-week program consists of 2 weeks of basic instruction in the fundamentals of seafood processing and on-the-job training. Clatsop Community College in the town and the Seafood Dealers Association have joined forces to carry out the program.**

**As soon as the trainee joins the assembly lines she receives the standard wage. She is considered a trainee until she reaches a quota set by the industry, in pounds of marketable fillets.**

**Trainees are enthusiastic. They say, for instance—**

***A woman who had been unemployed:* "My thanks to the Federal Government and all others connected with the course. . . . . It certainly isn't very often someone will do anything for the betterment of the unskilled laborer without expecting a good deal in return. But . . . . Uncle Sam will reap returns in one way—the taxes I will be able to pay."**

***A widow:* "This for me is a very big opportunity, for I never finished high school and would have only been able to do waitress or maid work which pays only about a dollar an hour. I have a little girl to support, and I have been on welfare. This job will take me off welfare, and that will be nice."**

***A housewife and part-time breadwinner:* "I would never have thought of learning this trade, and I hope other women will be given the same opportunity. The school has helped us to get really interested in seafood processing, and the time spent with us in explaining the business before we went on the fillet line was very helpful and important."**

### Salaries

The survey shows that the level of education apparently makes a difference in salary level. Fifty percent (13) of the workers with doctorates in guidance services had an annual salary above $10,000; of those without this degree, only 17 percent (19) earned as much (table 3).

The median salary for 175 respondents (three did not answer the question on salary) was $8,603; the mean average, $8,831. About 65 percent clustered around the median, with salaries ranging between $6,000 and $10,000. Only 21 workers had salaries of less than $7,000 and 54 of more than $10,000. Fourteen had more than $12,000. The median for each type of degree was as follows:

*Degrees in guidance services.*
Ph. D. $9,875 (men $10,250, women $9,000). Ed. D. $10,500 (men $11,125, women $10,000). Master's $8,241 (men $8,300, women $8,071). All advanced degrees $8,616 (men $8,727, women $8,312).

*Degrees in other fields.*
Ph. D. $9,750 (men $10,000, women $9,500). Ed. D. $8,375 (no women in this group). Master's $7,875 (men $7,750, women $11,000). All advanced degrees $8,333 (men, $8,833, women $9,750).

The wide range in the size of the salaries paid to these workers is partly a reflection of the wide range in the size of the median family income in the various regions of the United States (table 4). The Pacific region, where the salaries for guidance workers are highest, has the highest median family income. The Mountain region ranks fifth for both; the East South Central region, lowest for both. In the Territories the salaries of guidance workers are lower than in the continental United States; figures on the median family income there are not available.

# The Data-Processing Center in the State Department of Education

JOHN E. BEAN

ONE OF THE MOST SIGNIFICANT developments in recent years in the operation of State departments of education has been the rapid increase in the scope and sophistication of statistical services. This development has been facilitated by the provisions of section 1009, title X, National Defense Education Act, which authorize matching Federal funds to assist the States "to improve and strengthen the adequacy and reliability of educational statistics." Title X programs are designed to (1) improve the collection, analysis, and reporting of statistical data from local educational units, (2) develop accounting and reporting manuals to guide local educational units, (3) conduct conferences and training programs for employees of local educational units and make periodic reviews and evaluation of statistical programs, (4) improve methods of obtaining educational data from other State agencies, and (5) expedite the processing and reporting of statistical data through the installation and operation of mechanical data-processing equipment.

Recognizing the challenge and opportunity offered by title X, the Council of Chief State School Officers in 1962 established a standing committee of representatives from every State and territory, known as the Committee on Educational Data Systems (CEDS). The primary objective of CEDS is to assist State departments of education to develop better research in data determination, collection, processing, dissemination, and utilization; profit from the developments and practices in data processing in other States; and contribute to the efficient use of educational data systems in the improvement of the educational opportunities for young people and adults of the Nation. The committee's activities are closely related to those of the Office of Education, and the Commissioner of Education has appointed a staff member to serve as a consultant to the committee on matters of Federal-State cooperation.

Six years ago only a handful of States were operating data-processing centers; now nearly all States have them. Inevitably, the new emphasis on improved statistical services has raised questions about machine placement and control. The operating cost and complexity of a data-processing installation and the need of all departmental units for common educational data suggests—even demands—that a data-processing center serve the entire State department of education. This raises the question of where to place the center for most effective administration and control.

*Dr. Bean, specialist in State education programs, Division of Educational Organization and Administration, came to the Office of Education in 1962 from the Utah State Department of Public Instruction, where he was director of research and statistics. This article was prepared in consultation with Ivan N. Seibert, director, and staff members of the Field Programs Branch.*

## Placement of responsibility

The great variation in placement of responsibility is shown by the position of the title X primary contact person in each of the States. Only 10 are designated by title as responsible solely for statistics, whereas 11 have research titles. Many have dual responsibilities: research and statistics (8 States), finance and statistics (5 States), administration and finance (2 States) and research, statistics, and finance (2 States). The contact persons in other States are primarily responsible for administration (7 States), finance (2 States), and Federal programs (3 States).

Although the title X contact person is generally charged with supervision of the data-processing center, he may share this responsibility. In 21 States some or all of the processing is done outside the department in a State computer center, usually under the direction of a programer from the department.

In many States the responsibility for statistical services was assigned by chance or default years ago when the State departments were primarily concerned with enforcing regulations and keeping records. The great increase in the range and extent of departmental commitments and the growing emphasis on State responsibility for educational leadership in all aspects of administration and instruction calls for a reappraisal of statistical services and a review of the placement of the data-processing center. It seems appropriate for State departments to consider the major advantages and disadvantages of the organizational patterns now in use.

## Current patterns

Most States assign the major responsibility for data processing to one of the following units: Research, finance, administration, NDEA, data-processing, or a computer center.

*Research unit.*—The most common assignment of responsibility for data processing is under, or with, the research unit. Placing the responsibility here capitalizes on certain technical competencies necessary to both research and title X activities and obviates the necessity of drawing an administrative distinction between the two services. Research operations are facilitated, inasmuch as nonroutine statistical programing for research purposes may cause scheduling difficulties when the control of data processing is vested in some other unit. This advantage may be lost, however, in a small State department if both

research and statistics are under one person. Each requires full-time attention to be effective; a person with a dual responsibility often gives more time and attention to the job for which he is more strictly accountable, such as the expenditure of matching funds or the execution of a State plan.

*Finance unit.*—In some States, particularly those using the installation extensively for accounting operations, data-processing is under the finance unit. There is an obvious scheduling advantage in placing the control of the data-processing machines with a major user, and a potential disadvantage in that it may be difficult for other departmental units to secure adequate machine time and personnel services.

*Administration unit.*—In some States data-processing is assigned to an administration unit, often headed by an assistant State superintendent. This major unit usually contains, among others, research and finance sections. Placing the data processing center here preserves the advantages of having the center near the primary users, but does not eliminate the danger that the departmental units responsible for instructional leadership may be denied adequate statistical services.

*NDEA unit.*—In a few States the responsibility for all NDEA titles is placed under a single administrator. Although this practice simplifies somewhat the work of maintaining the special accounts and following the administrative procedures required for NDEA programs, it is questionable whether it serves a sound educational purpose. The programs supported by the various titles of NDEA are not closely related. In most instances they can be administered to the greatest professional advantage in other units, rather than in a separate unit. Furthermore, data-processing services are needed continually by all departmental divisions, and are too basic to be controlled most efficiently by the administrator of a law which is, at least in theory, temporary.

*Data-processing unit.*—The major advantage of a separate data-processing unit is its freedom from domination by a parent unit and its consequent flexibility in providing departmentwide services. This independence, on the other hand, may cause it to be aloof or remote from the problems of the departmental divisions it was established to serve. This disadvantage can be surmounted; efficient communication and control can be established in a supporting relationship for an independent departmental data-processing unit.

*State computer center.*—Statistical operations in some States are too small to justify the maintenance of a full range of data-processing machines. In these States operations are usually contracted out to a special State computer center or to a university, local school district, private service bureau, or another State agency with a data-processing installation. In such instances a logical compromise is for the department to operate its own input machines but to contract for output machine services from another agency. In any case, one responsible person in the department must understand and be able to program the entire range of machines.

## Guidelines

Each organizational pattern followed for the placement of a data-processing center has advantages and disadvantages, and the ideal placement may well vary from State to State. Guidelines can be drawn up for the use of all departments.

★ Every State should have a data-processing center, with clearly drawn lines of access and responsibility. The organizational placement of the center will depend on several related factors, such as existing department structure, department size, range and extent of statistical services required, and the competence of individual staff members. A large department may need additional data-processing centers in major subdivisions.

★ Although the data-processing center must be readily available to all departmental users, it does not follow that all records and statistical files must be kept there. Widely used or often-processed data can well be banked close to the machines, whereas data collected and processed primarily to facilitate the operation of departmentally supervised programs may be filed more advantageously in the departmental divisions charged with such supervision or control.

★ Once established, the placement of the data-processing center in the departmental organization should not be regarded as forever set. Techniques for the automatic processing of data are now improving and expanding so rapidly that all future developments cannot be anticipated. The organization should be sufficiently flexible to permit ready adjustments as needs arise and new data-processing procedures are developed.

★ The supervisor of the data-processing center should have considerable sophistication in research techniques in order to handle the unique statistical requirements of special research projects conducted in the various departmental divisions. Routine statistical operations can and should be routinely scheduled so as to reserve machine time for special projects.

★ Departmental needs and requirements for collecting, treating, and interpreting statistical data should be subject to periodic or continuing review. State departments of education have come a long way since their title X State plans were first approved, and now is a good time to take stock. Each State should critically review the objectives of its program of statistical services and, if necessary, reconsider the way the department is staffed and organized to realize those objectives.

★ The function and placement of the data-processing center must be considered in the perspective of total department operations and responsibilities. The *raişon d'être* of the center is service; consequently, the center should not be allowed to become an instrument for administrative control of programs. The success of the data-processing center can be measured only by how effectively it serves the various programs administered by the State department.

# AD Minutes Briefly noted---- for the busy School Administrator

*Material for this department is prepared by the staff of the Division of Educational Organization and Administration*

**The Learning Institute of North** Carolina, a nonprofit corporation, has been formed, according to Governor Terry Sanford, to study various means for putting into practice new educational procedures as they are discovered through research and to form a central agency for the control of pioneering educational programs in the State. The Governor signed the charter for the new corporation in his capacity as president of the North Carolina Fund, the agency already set up to handle millions of dollars in funds assured from private foundations to finance educational research and development in the State.

In commenting on the new organization, the Governor says, "LINC ought to delve into the very center of the problem of learning to try to find out why some children do well and some don't live up to their potential." He says that too often children themselves are blamed for not taking advantage of their educational opportunities. And he adds, "We ought to stop blaming such important matters on children, and look to ourselves for some of the blame. This might mean new teaching methods, new approaches, and almost certainly it is going to put the spotlight on community faults outside the schools themselves."

**Boards of education troubled by** majority-minority factions will find some ground rules for fair play in a decision by the New Jersey Commissioner of Education, setting aside the action of a township board. Thomas P. Cook, counsel to the New Jersey Federation of District Boards of Education, reports the facts in the case along with some comments of his own in the Federation's monthly bulletin, *School Board Notes.*

The township board of education employed a superintendent of schools for a 2-year period, beginning February 1, 1961, with a provision in his contract that either party could cancel it upon 90 days' notice. In October of the same year, the board of education, acting with the consent of the superintendent, rescinded the old contract and entered into a new 3-year contract that did not contain a cancellation provision. The resolution awarding the new contract was introduced at a meeting in which seven of the nine members were present. Only three of those present had received advance notice of the resolution. After a brief discussion of the resolution, the board adopted it by a 5 to 2 vote.

In setting aside the decision, the New Jersey Commissioner said that "the majority acted upon a secretly conceived plan to decide a matter of major significance to the school district, without discussing it with the minority members, and executed this plan at the public meeting over the declared protests of minority members that the resolution, at the very least, was premature and deserved further consideration before being presented for final action. The abuse of discretion is so palpable as to require that their resolution of October 18, 1961 and the contract executed pursuant thereto, be declared a nullity."

Moreover the Commissioner held that the failure of the minority members to make an effective protest at the time the new contract was approved did not prevent the board, following school board elections 4 months later, from taking action to disregard the second contract and to honor only the original one.

Cook, in commenting on the case, advises every board "to act on matters of general importance only after the matter has been noticed, discussed, and considered to the degree that it merits. Advance preparation of proposed resolutions, policies or guides, and preliminary discussion thereon for agenda purposes, are of course consistent with good faith, honesty, and fair dealing required of all board members. Certain other types of activity strongly evidence improper conduct and should be avoided. These would include holding a caucus or meeting of a majority but less than all of the board, especially if such meeting is held without the knowledge of or notice to the missing members; and hasty action whenever unwarranted, particularly when it occurs shortly before a new board is to be organized."

**One of the 13 recommendations** submitted to the Chicago Board of Education by the advisory panel on integration of public schools deals with improving school-community relations. The five-member panel, headed by Philip M. Hauser, University of Chicago sociology professor, was formed last August to present a plan for eliminating any inequities that may exist in the Chicago School System.

The report by the panel states, "The difficulties that presently obtain in the Chicago public schools relating to segregation and race relationships are partly due to failures in communication between the schools and the public." The report calls on school officials "to take whatever measures may be necessary to insure a free flow of information to the public and to make themselves readily available to the

patrons of their schools for discussion of individual cases, as well as general problems."

The report also calls on the board to regularly publish a variety of statistical information for public consumption. It says that information should be provided by race as well as by other significant characteristics on achievement tests, enrollment, and attendance by school district and for the system; staff members—numbers, distribution, experience, etc.; facilities and space utilization; attendance area boundaries; and the action, if any, that has been taken or contemplated in accordance with the recommendations of the panel.

# School Library Reporter

MARY HELEN MAHAR

CHANGES in the organization of instruction in secondary schools have renewed interest in departmentalized high school libraries. The idea of departmentalization is not new; over 25 years ago a high school in Indiana not only had a departmentalized library for science and social studies but also had assistant librarians who were subject specialists to organize the collections and to assist the teachers and pupils in selecting and using materials. Moreover some high school libraries, usually those in large cities, have for many years had special rooms or areas for subject collections in addition to general collections in reading rooms.

Recently new and remodeled high school libraries have been departmentalized. In an Illinois high school, for example, the library area includes separate rooms for social studies, language arts, foreign languages, and guidance materials. In these rooms there is enough space to permit whole classes to use the materials at the same time and for teachers to use the library in their daily instructional programs. Not all high schools that have departmentalized libraries provide them for all subjects however; the subjects that get special attention are the ones for which departmental libraries are most functional in the school's program.

Traditionally many high schools have borrowed collections of materials for indefinite periods and have shelved them in departmental offices and classrooms. But such collections no longer meet the needs of either pupils or teachers. Changes now being made in the instructional program require that collections be available in many places in the school. Team teaching, the organization of large groups for certain kinds of instruction, and the scheduling of large blocks of time for independent study—these and other practices can be used successfully only if pupils have easy access to a wide variety of library materials.

Some new high schools have set aside special rooms—some call them study centers, branch libraries, or workrooms—where students can use printed and audiovisual materials from the school library. Such rooms adjoin departmental areas and are equipped with shelving, study cubicles or carrels, tape recorders, projectors, and other electronic equipment.

In some schools these rooms have been served by clerks, but this practice has not been successful. Librarians are needed to organize materials and to assist teachers and pupils in locating and selecting materials. Librarians trained as subject-matter specialists would undoubtedly be of greater assistance, but how much greater is not known. Considering the tremendous increase in materials in all subject fields, particularly in scientific and technical subjects, it might be worthwhile to conduct an educational experiment in which assistant librarians who are also subject specialists were employed to manage department libraries or departmentalized rooms within the central library. Even if only two departments had such libraries, both of them supervised by assistant librarians with special knowledge of the subjects, the experiment would more than likely lead to improvement in instruction and planning.

ALTHOUGH there are no standard specifications for department libraries, they should probably accommodate from 1,500 to 2,000 books, a collection of current periodicals, four or five study cubicles equipped for the use of audiovisual materials, five or six informal library tables and chairs, a cabinet for pamphlets, and a desk for the librarian.

If the department libraries adjoin instructional areas, the central school library should be retained, and both the central and the department libraries should be administered by a head librarian. This plan enables the librarian to add new materials to the department library as units of study change and to withdraw materials not in use.

The central library should serve teachers and pupils with instructional materials in all subjects, including those for which the department libraries are provided. It should be an attractive place for reading and study and should be equipped for use of films and other audiovisual materials. No matter how good the department library, the central library should provide opportunities for students to use larger collections for research and to follow their individual interests.

A SCHOOL LIBRARY may be departmentalized within the central library; departmental libraries may be set up near instructional areas; or the traditional centralized library and classroom collections may be retained. The choice should be made by school administrators and faculties to best serve the instructional program.

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*Miss Mahar is coordinator of school library services, Office of Education.*

*Statistic of the Month*

## Nonpublic schools in the 50 largest cities

**Like population, the nonpublic schools in the United States and the enrollment in those schools are concentrated in the large cities.**

**The 3,813 nonpublic schools located in the 50 largest cities represent 26 percent of all the nonpublic schools included in the 1962 national inventory of school facilities (14,531), whereas the 7,397 public schools in these cities represent only 8 percent of the public schools (96,710). Moreover, 1 out of every 3 pupils in the Nation's nonpublic schools is in the 50 largest cities, whereas only 1 out of every 8 in the public schools is there.**

**From city to city, the ratio of nonpublic schools to public varies widely. In Atlanta only 4 percent of the pupils are nonpublic; in Pittsburgh, 47.6 percent. These are the extremes; the average for the 50 largest cities is 22.4 percent.**

**All figures here are from the 1962 national inventory of school facilities and personnel, made by the Bureau of the Census, the Office of Education, and the State educational agencies. The inventory covered schools enrolling 97 percent of all pupils in the United States—99 percent of the pupils in public schools and 85 percent of the estimated number in nonpublic schools.—George J. Collins, chief, Elementary-Secondary Education Surveys Section, Office of Education.**

PUBLIC AND NONPUBLIC SCHOOLS IN THE 50 LARGEST CITIES AND THE NUMBER OF PUPILS IN MEMBERSHIP, 1962

| Cities (in order by population, 1960 Census) | Public | | Nonpublic | |
|---|---|---|---|---|
| | Number of schools | Pupil membership [1] | Number of schools | Pupil membership [2] |
| Total (50 cities) | 7,397 | 6,304,906 | 3,813 | 1,819,802 |
| New York, N.Y. | 838 | 950,921 | 491 | 374,611 |
| Chicago, Ill. | 489 | 466,600 | 384 | 220,584 |
| Los Angeles, Calif. | 546 | 520,871 | 140 | 45,642 |
| Philadelphia, Pa. | 255 | 239,354 | 157 | 85,659 |
| Detroit, Mich. | 270 | 272,837 | 164 | 88,588 |
| Baltimore, Md. | 188 | 164,278 | 106 | 36,932 |
| Houston, Tex. | 182 | 174,677 | 52 | 18,122 |
| Cleveland, Ohio | 169 | 131,474 | 117 | 51,155 |
| Washington, D.C. | 170 | 119,093 | 72 | 22,697 |
| St. Louis, Mo. | 124 | 94,399 | 152 | 53,899 |
| San Francisco, Calif. | 128 | 95,007 | 69 | 26,570 |
| Milwaukee, Wis. | 142 | 102,674 | 119 | 57,252 |
| Boston, Mass. | 190 | 85,163 | 101 | 50,220 |
| Dallas, Tex. | 156 | 129,457 | 34 | 12,857 |
| New Orleans, La. | 117 | 92,332 | 89 | 42,568 |
| Pittsburgh, Pa. | 103 | 67,299 | 133 | 61,133 |
| San Antonio, Tex. | 100 | 120,203 | 64 | 24,046 |
| San Diego, Calif. | 138 | 108,003 | 27 | 8,723 |
| Seattle, Wash. | 120 | 103,385 | 50 | 17,033 |
| Buffalo, N.Y. | 95 | 64,283 | 98 | 43,355 |
| Cincinnati, Ohio | 95 | 83,549 | 114 | 49,751 |
| Memphis, Tenn. | 118 | 103,658 | 35 | 20,435 |
| Denver, Colo. | 118 | 91,881 | 55 | 16,532 |
| Atlanta, Ga.[3] | 139 | 102,895 | 18 | 4,267 |
| Minneapolis, Minn. | 100 | 71,068 | 53 | 26,040 |
| Indianapolis, Ind. | 111 | 93,719 | 51 | 18,969 |
| Kansas City, Mo. | 97 | 70,268 | 48 | 15,844 |
| Columbus, Ohio | 135 | 89,260 | 40 | 16,947 |
| Phoenix, Ariz.[4] | 139 | 82,500 | 42 | 16,588 |
| Newark, N.J. | 75 | 66,444 | 29 | 10,470 |
| Louisville, Ky.[3] | 72 | 46,771 | 85 | 34,687 |
| Portland, Oregon | 100 | 74,033 | 42 | 13,225 |
| Oakland, Calif. | 89 | 60,001 | 26 | 7,933 |
| Fort Worth, Tex. | 109 | 71,778 | 18 | 3,790 |
| Long Beach, Calif. | 75 | 72,436 | 19 | 8,297 |
| Birmingham, Ala. | 104 | 68,683 | 24 | 5,501 |
| Oklahoma City, Okla. | 99 | 67,798 | 20 | 5,078 |
| Rochester, N.Y. | 52 | 43,175 | 64 | 32,905 |
| Toledo, Ohio | 66 | 50,641 | 50 | 22,958 |
| St. Paul, Minn. | 85 | 46,144 | 68 | 31,788 |
| Norfolk, Va. | 65 | 51,874 | 15 | 5,927 |
| Omaha, Nebr. | 86 | 51,123 | 52 | 21,617 |
| Honolulu, Hawaii [5] | 116 | 114,369 | 42 | 18,376 |
| Miami, Fla.[3] | 193 | 176,842 | 47 | 10,800 |
| Akron, Ohio | 71 | 57,623 | 21 | 12,371 |
| El Paso, Tex. | 65 | 53,638 | 21 | 6,280 |
| Jersey City, N.J. | 35 | 33,646 | 32 | 16,914 |
| Tampa, Fla.[3] | 117 | 81,004 | 21 | 5,387 |
| Dayton, Ohio | 69 | 57,927 | 24 | 13,756 |
| Tulsa, Okla. | 82 | 67,848 | 18 | 4,723 |

[1] Includes pupil membership in public school districts reported in the "National Inventory of School Facilities and Personnel."
[2] Includes pupil membership in nonpublic schools within city limits similar to census area and not usually coterminous with school districts; i.e., Louisville, or Miami.
[3] Includes pupils in city school district only. Excludes city resident pupils in county schools.
[4] Includes more than 1 school district.
[5] Includes all schools in county school district.

Source: U.S. Department of Health, Education, and Welfare, Office of Education. George J. Collins, "National Inventory of School Facilities and Personnel: Spring 1962." (OE-21026, Misc. No. 44) Washington: U.S. Government Printing Office, 1964.

### Navaho Education Association invites new members

The Navaho Tribal Council has invited all educators interested in Indian education to join the recently formed Navaho Education Association. The association will include representatives of public schools, mission schools, schools operated by the Bureau of Indian Affairs (U.S. Department of Interior), vocational and technical training schools, colleges and universities, and other organizations concerned with the education of American Indians.

The association wants to help provide better education for young Navahoes and consequently better opportunities for them on the reservation. Persons interested in getting further information or in joining the association should write to the Executive Board, the Navaho Education Association, Window Rock, Ariz., 86515.

### Mathematics institute for teachers of the deaf

Teachers of mathematics in schools of the deaf will attend an institute this summer at Gallaudet College. The 8-week institute (July 6–August 28) will be held for 40 qualified teachers under a grant from the National Science Foundation. Leon Auerbach, associate professor of mathematics at Gallaudet, himself deaf, will direct the institute. Lauren Woodby, mathematics specialist in the Office of Education, will be associate director.

Only teachers who have taught for at least 3 years in a school for the deaf and who were recommended by their supervisors were considered.

Instruction will be in the basic skills and concepts of modern mathematics and in effective teaching techniques.

# SCHOOL BONDS

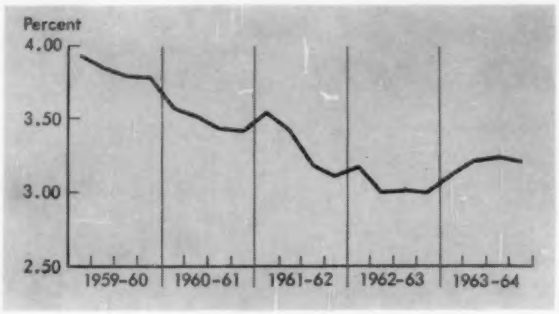
## . . . sales, interest rates, et cetera . . .

*By* ELMER C. DEERING, *specialist on the financing of school facilities, Division of Educational Organization and Administration, Office of Education.*

THE AVERAGE INTEREST RATE on tax-exempt bonds, which include school bonds, reached a peak at near 4 percent in the fall of 1959. During the next 3 years, the average rate moved generally downward to a low of 3 percent in the fall of 1962, where it remained through the first half of 1963. In the fall of 1963 the rate began an upward swing that continued through March 1964, where it was halted at about 3.30 percent. During the last 3 months, the rate has turned slightly downward and has been leveling off at near 3.25 percent.

The upward trend, which began in September 1963, has been attributed to several factors, chief among which are these: (1) Diminished activity of commercial banks in the municipal bond market, (2) higher yields on U.S. Government securities, (3) higher interest rates on time deposits of banks, and (4) unloading of tax-exempt securities by insurance companies after the Federal District Court decision on May 1, 1963. The court held that the Atlas Life Insurance Company of Tulsa, Oklahoma, could not claim tax exemption on municipal bonds under the Life Insurance Act of 1959. The U.S. Circuit Court of Appeals in Denver reversed the District Court decision on May 25, 1964. This reversal may have a far-reaching influence on the attractiveness of tax-exempt securities, that is, if the U.S. Supreme Court does not upset it.

Average net interest cost of Moody-rated school bonds sold between July 1, 1959, and June 30, 1964, by quarters




Average net interest cost of Moody-rated bonds sold on primary market for public schools, by rating only: Annual 1959–60 to 1962–63; monthly, May 1963 to May 1964

| Period | Aaa | Aa | A | Baa | Ba | All rated bonds |
|---|---|---|---|---|---|---|
| 1959–60 | 3.26 | 3.63 | 3.77 | 4.21 | 4.55 | 3.84 |
| 1960–61 | 2.82 | 3.34 | 3.43 | 3.75 | 3.97 | 3.48 |
| 1961–62 | 2.84 | 3.23 | 3.19 | 3.51 | 3.93 | 3.27 |
| 1962–63 | 2.64 | 2.86 | 2.99 | 3.29 | 3.72 | 3.03 |
| *1963* | | | | | | |
| May | ..... | 2.74 | 2.94 | 3.31 | 3.38 | 3.02 |
| June | ..... | 2.99 | 3.03 | 3.36 | 3.58 | 3.14 |
| July | ..... | 2.91 | 2.99 | 3.34 | 3.83 | 3.07 |
| August | 2.62 | 2.98 | 3.04 | 3.37 | 3.75 | 3.07 |
| September | ..... | 2.96 | 3.13 | 3.33 | 3.76 | 3.19 |
| October | 2.76 | 3.05 | 3.18 | 3.38 | 3.73 | 3.18 |
| November | 2.89 | 3.14 | 3.25 | 3.46 | ..... | 3.25 |
| December | 2.86 | 3.04 | 3.18 | 3.50 | 3.80 | 3.23 |
| *1964* | | | | | | |
| January | ..... | 3.05 | 3.21 | 3.46 | 3.81 | 3.25 |
| February | 2.85 | 2.87 | 3.13 | 3.39 | 3.80 | 3.16 |
| March | 3.00 | 3.08 | 3.28 | 3.47 | 3.88 | 3.31 |
| April | ..... | 3.09 | 3.20 | 3.49 | 3.81 | 3.24 |
| May | 2.83 | 3.16 | 3.12 | 3.48 | 3.73 | 3.21 |

Source: Sales reported by *The Daily Bond Buyer;* ratings reported by Moody's Investors Service (rated bonds include 75–80 percent of all bonds for public schools).

Average net interest cost of Moody-rated bonds sold on primary market for public schools, by rating and by term of bond, for the latest quarter and month available

| Term of bond | Aaa | Aa | A | Baa | Ba | All rated bonds |
|---|---|---|---|---|---|---|
| | Latest quarter (January-March 1964) | | | | | |
| Under 15 years | 2.86 | 2.63 | 2.94 | 3.19 | ..... | 2.96 |
| 15–24 years | 2.89 | 2.96 | 3.20 | 3.42 | 3.73 | 3.18 |
| 25 years and over | ..... | 3.18 | 3.24 | 3.47 | 3.88 | 3.34 |
| All terms | 2.89 | 3.02 | 3.21 | 3.44 | 3.85 | 3.24 |
| | Latest month (May 1964) | | | | | |
| Under 15 years | 2.75 | 2.93 | 2.99 | 3.13 | ..... | 2.92 |
| 15–24 years | 2.94 | 3.08 | 3.13 | 3.53 | 3.73 | 3.18 |
| 25 years and over | ..... | 3.20 | 3.22 | 3.49 | ..... | 3.29 |
| All terms | 2.83 | 3.16 | 3.12 | 3.48 | 3.73 | 3.21 |

Source: Sales reported by *The Daily Bond Buyer;* ratings reported by Moody's Investors Service (rated bonds include 75–80 percent of all bonds for public school purposes).

EDITOR'S NOTE. A summary of bond sales for institutions of higher education during calendar year 1963, by W. Robert Bokelman and Elmer C. Deering, is in the June issue of *Higher Education* (single copies are available for 20 cents from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402).

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*Opening (Fall) Enrollment in Higher Education, 1963*, by Edith M. Huddleston, 1963, 68 pp., 40 cents (OE–54003–63).

*Progress of Public Education in the United States of America, 1963–64*, 1964, 73 pp., 30 cents (OE–10005–64–A).

## Other Agencies

### Aging

*Developments in Aging, 1959 to 1963*, Special Committee on Aging, U.S. Senate, 1963, 224 pp., 60 cents, 88–1:S. rp, 8.

Documents the activities and achievements of the Committee; and reviews developments in the field of aging since 1959, including legislative proposals.

*Industrial Retraining Programs for Technological Change: A Study of the Performance of Older Workers*, Department of Labor, 1963, 35 pp., 25 cents, L 2.3:1368.

### Conservation

*Information About Public Lands*, Department of Interior, 1963, 20 pp., 10 cents, I 53.2: P96/6/963.

*Wilderness*, Department of Agriculture, 1963, 16 pp., 20 cents, A 1.68: 459/2.

Describes the wild and primitive lands of the wilderness areas maintained by the National Forest Service. Includes a map showing the 10 types of wilderness areas.

### Health

*Drug Literature*, Subcommittee on Reorganization and International Organizations, U.S. Senate, 1963, 171 pp., 65 cents, Y 4.G74/7:d84/2.

*Foundation Expenditures for Medical and Health-Related Research and Education*, 1960, Department of Health, Education, and Welfare, 1963, 14 pp., 20 cents, FS 2.22/33:2.

Describes the size and character of the support by private philanthropic foundations.

### Technology

*Blueprint Reading and Sketching*, Department of Defense, 1956, 275 pp., $1, D 208.11:B 62/956.

Explains the language of a blueprint—lines, sections, symbols, dimensions, conventions, notes, and titles. Describes and illustrates technical sketching. Also includes sections on wiring and schematic diagrams, and on welding, structural, and architectural symbols.

*Private Pilot (Airplane) Flight Training Guide*, Federal Aviation Agency, 1963, 126 pp., $1, FAA 5.8/2:P 64/4.

Describes plans for the flight training of primary students. Contains an instructor's syllabus on all fundamentals, procedures, and flight maneuvers necessary for proficient and safe flying.

*Selected Wedding Techniques: Applications Notes, Office of Technology Utilization*, National Aeronautics and Space Administration, 1963, 25 pp., 30 cents, NAS 1.21:501.

Describes tools and techniques used in the George C. Marshall Space Flight Center. One of a series of publications on technical information useful in fabrication and assembly shops.

### U.S. Government

*Copyright Law of the United States of America*, Library of Congress, 1963, 62 pp., 25 cents, LC 3.3: 14/963.

*Statistical Services of the United States Government*, Executive Office of the President, 1963, 136 pp., $1, PrEx 2.2.: st 2/963.

Describes the statistical system of the Federal Government, the principal economic and social statistical series collected by Federal agencies, and the statistical responsibilities of each Federal agency.

*Territorial Responsibilities*, Department of Interior, 1963, 34 pp., 20 cents, I 35.2R: 31.

Gives information on the history, government, population, economy, health, education, communications, and transportation of the most prominent of the territories outside of the United States administered by the Federal Government.

*United States Immigration Laws: General Information*, Department of Justice, 1963, 24 pp., 15 cents, J 21.5/2: IM 6/693.

Describes ways of solving problems frequently raised by U.S. immigration laws.

### U.S. History

*Historical Statistics of the United States: Colonial Times to 1957*, Department of Commerce, 1960, 801 pp., $6, C 3.134/28:621957.

Includes figures for agriculture, armed forces, banking and finance, births and deaths, climate, communications, construction and housing, crime, education, foreign trade, employment, immigration, population, religion, transportation, wages, wealth and income, and many other subjects.

*The Secretaries of State: Portraits and Biographical Sketches*, Department of State, 1956, 124 pp., $1, S 1.69:58.

Contains reproductions of portraits of every Secretary of State (Jefferson through John Foster Dulles).



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